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<150> PCT/EP2004/007540

<151> 2004-07-09

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<151> 2004-07-11

<150> EP 03450171.8

<151> 2004-03-12

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<170> PatentIn version 3.1

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Cys Ile Asn Gly Val Cys Trp Thr Val  
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Asp Leu Met Gly Tyr Ile Pro Ala Val  
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Asp Tyr Pro Tyr Arg Leu Trp His Tyr  
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Ile	Phe	Lys	Ile
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1				5					10					15	

Ile	Phe	Lys	Val
			20

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<400> 37

Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Tyr
1				5					10					15

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<213> HCV vaccines

<400> 38

Asp Tyr Pro Tyr Arg Leu Trp His Tyr Pro Cys Thr Val Asn Tyr Thr  
1 5 10 15

Ile Phe Lys Ile  
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<210> 39

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<213> HCV vaccines

<400> 39

Glu Leu Ser Pro Leu Leu Leu Ser Thr  
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<210> 40

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<213> HCV vaccines

<400> 40

Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala Gly Ala Ala Trp  
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Tyr Glu

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<400> 41

Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala Gly Cys Ala Trp  
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Tyr Glu

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<211> 18

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<400> 42

Phe Asp Ser Val Val Leu Cys Glu Cys Tyr Asp Ala Gly Ala Ala Trp  
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Tyr Glu

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<400> 43

Phe Asp Ser Val Val Leu Cys Glu Cys Tyr Asp Ala Gly Cys Ala Trp  
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Tyr Glu

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<211> 18

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Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala Gly Ala Ala Trp  
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Tyr Glu

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Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala Gly Cys Ala  
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Phe Thr Asp Asn Ser Ser Pro Pro Ala Val Pro Gln Thr Phe Gln Val  
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Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr  
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Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr  
1 5 10 15

Cys Ile Asn Gly  
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<400> 49

Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr

1 5 10 15

Cys Ile Asn Gly Val Cys Trp Thr Val  
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Gly Pro Arg Leu Gly Val Arg Ala Thr  
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Gly Pro Arg Leu Gly Val Arg Ala Thr Arg Lys  
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<210> 52

<211> 15

<212> PRT

<213> HCV vaccines

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Gly Gln Gly Trp Arg Leu Leu Ala Pro Ile Thr Ala Tyr Ser Gln  
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<211> 22

<212> PRT

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Gly Gln Gly Trp Arg Leu Leu Ala Pro Ile Thr Ala Tyr Ser Gln Gln  
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Thr Arg Gly Leu Leu Gly  
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<213> HCV vaccines

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Thr Arg Gly Leu Leu Gly Cys Ile Val  
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<400> 55

Gly Ser Ile Gly Leu Gly Lys Val Leu Val Asp Ile Leu Ala Gly  
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<210> 56

<211> 15

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<213> HCV vaccines

<400> 56

Gly Val Leu Phe Gly Leu Ala Tyr Phe Ser Met Val Gly Asn Trp  
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<210> 57

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<213> HCV vaccines

<400> 57

Gly Trp Arg Leu Leu Ala Pro Ile Thr Ala Tyr Ser Gln Gln Thr Arg  
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Gly Leu Leu Gly Cys Ile Val  
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<400> 58

Gly Tyr Gly Ala Gly Val Ala Gly Ala Leu  
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<213> HCV vaccines

<400> 59

Gly Tyr Ile Pro Leu Val Gly Ala Pro Leu  
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Gly Tyr Lys Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr  
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<400> 61

His Met Trp Asn Phe Ile Ser Gly Ile  
1 5

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<400> 62

His Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser  
1 5 10 15

Thr Leu

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<211> 23

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<400> 63

His Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser  
1 5 10 15

Thr Leu Pro Gly Asn Pro Ala  
20

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His Met Trp Asn Phe Ile Ser Gly Ile Ser Thr Leu Pro Gly Asn Pro  
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Ala

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<211> 17

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<400> 65



His Met Trp Gln Tyr Leu Ala Gly Leu Ser Thr Leu Pro Gly Asn Pro  
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Ala

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<400> 66

His Tyr Pro Cys Thr Val Asn Phe Thr Ile  
1 5 10

<210> 67

<211> 10

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<213> HCV vaccines

<400> 67

His Tyr Pro Cys Thr Val Asn Tyr Thr Ile  
1 5 10

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1 5 10 15

Ile Cys Ile Cys Ile Cys Ile Cys Ile Cys  
20 25

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<400> 69

Ile Gly Leu Gly Lys Val Leu Val Asp Ile Leu Ala Gly Tyr Gly  
1 5 10 15

<210> 70

<211> 26

<212> PRT

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<400> 70

Ile Gly Leu Gly Lys Val Leu Val Asp Ile Leu Ala Gly Tyr Gly Ala  
1 5 10 15

Gly Val Ala Gly Ala Leu Val Ala Phe Lys  
20 25

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<211> 9

<212> PRT

<213> HCV vaccines

<400> 71

Ile Leu Ala Gly Tyr Gly Ala Gly Val  
1 5

<210> 72

<211> 22

<212> PRT

<213> HCV vaccines

<400> 72

Lys Phe Pro Gly Gly Gly Gln Ile Val Gly Gly Val Tyr Leu Leu Pro  
1 5 10 15

Arg Arg Gly Pro Arg Leu  
20

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<211> 29

<212> PRT

<213> HCV vaccines

<400> 73

Lys Phe Pro Gly Gly Gly Gln Ile Val Gly Gly Val Tyr Leu Leu Pro  
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Arg Arg Gly Pro Arg Leu Gly Val Arg Ala Thr Arg Lys  
20 25

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<211> 22

<212> PRT

<213> HCV vaccines

<400> 74

Lys Phe Pro Gly Gly Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly  
1 5 10 15

Val Arg Ala Thr Arg Lys  
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<211> 11

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<213> HCV vaccines

<400> 75

Lys Leu Lys Leu Leu Leu Leu Lys Leu Lys  
1 5 10

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<211> 12

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<213> HCV vaccines

<400> 76

Lys Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr  
1 5 10

<210> 77

<211> 15

<212> PRT

<213> HCV vaccines

<400> 77

Leu Ala Gly Tyr Gly Ala Gly Val Ala Gly Ala Leu Val Ala Phe  
1 5 10 15

<210> 78

<211> 9

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<213> HCV vaccines

<400> 78

Leu Glu Asp Arg Asp Arg Ser Glu Leu  
1 5

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Leu Glu Asp Arg Asp Arg Ser Glu Leu Ser Pro Leu Leu Leu Ser Thr  
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<211> 19

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Leu Glu Asp Arg Asp Arg Ser Glu Leu Ser Pro Leu Leu Leu Ser Thr  
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Thr Glu Trp

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<212> PRT

<213> HCV vaccines

<400> 81

Leu Gly Lys Val Leu Val Asp Ile Leu Ala Gly Tyr Gly Ala Gly  
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<210> 82

<211> 10

<212> PRT

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<400> 82

Leu Ile Asn Thr Asn Gly Ser Trp His Ile  
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<210> 83

<211> 16

<212> PRT

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<400> 83

Leu Ile Asn Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala Leu Asn  
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<211> 21

<212> PRT

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<400> 84

Leu Ile Asn Thr Asn Gly Ser Trp His Ile Asn Arg Thr Ala Leu Asn  
1 5 10 15

Cys Asn Asp Ser Leu  
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<211> 10

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<213> HCV vaccines

<400> 85

Leu Leu Phe Asn Ile Leu Gly Gly Trp Val

1 5 10

<210> 86

<211> 8

<212> PRT

<213> HCV vaccines

<400> 86

Leu Pro Arg Arg Gly Pro Arg Leu  
1 5

<210> 87

<211> 15

<212> PRT

<213> HCV vaccines

<400> 87

Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala Thr Arg Lys  
1 5 10 15

<210> 88

<211> 15

<212> PRT

<213> HCV vaccines

<400> 88

Leu Val Asp Ile Leu Ala Gly Tyr Gly Ala Gly Val Ala Gly Ala  
1 5 10 15

<210> 89

<211> 15

<212> PRT

<213> HCV vaccines

<400> 89

Leu Trp His Tyr Pro Cys Thr Val Asn Phe Thr Ile Phe Lys Val  
1 5 10 15

<210> 90

<211> 15

<212> PRT

<213> HCV vaccines

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Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Tyr	Thr	Ile	Phe	Lys	Ile
1				5					10					15

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<211> 9

<212> PRT

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1				5				

<210> 92

<211> 9

<212> PRT

<213> HCV vaccines

<400> 92

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg
1				5				

<210> 93

<211> 17

<212> PRT

<213> HCV vaccines

<400> 93

Met	Ser	Thr	Asn	Pro	Lys	Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5					10					15	

Arg

<210> 94

<211> 20

<212> PRT

<213> HCV vaccines

<400> 94

Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser Thr  
1 5 10 15

Leu Pro Gly Asn  
20

<210> 95

<211> 22

<212> PRT

<213> HCV vaccines

<400> 95

Met Trp Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser Thr  
1 5 10 15

Leu Pro Gly Asn Pro Ala  
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<210> 96

<211> 18

<212> PRT

<213> HCV vaccines

<400> 96

Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser Thr Leu Pro  
1 5 10 15

Gly Asn

<210> 97

<211> 20

<212> PRT

<213> HCV vaccines

<400> 97

Asn Phe Ile Ser Gly Ile Gln Tyr Leu Ala Gly Leu Ser Thr Leu Pro  
1 5 10 15

Gly Asn Pro Ala



20

<210> 98

<211> 17

<212> PRT

<213> HCV vaccines

<400> 98

Asn	Gly	Ser	Trp	His	Ile	Asn	Arg	Thr	Ala	Leu	Asn	Cys	Asn	Asp	Ser
1				5					10					15	

Leu

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<212> PRT

<213> HCV vaccines

<400> 99

Pro	Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn	Arg
1				5					10	

<210> 100

<211> 9

<212> PRT

<213> HCV vaccines

<400> 100

Gln	Arg	Lys	Thr	Lys	Arg	Asn	Thr	Asn
1				5				

<210> 101

<211> 9

<212> PRT

<213> HCV vaccines

<400> 101

Gln	Tyr	Leu	Ala	Gly	Leu	Ser	Thr	Leu
1				5				

<210> 102

<211> 9

<212> PRT

<213> HCV vaccines

<400> 102

Arg Lys Thr Lys Arg Asn Thr Asn Arg  
1 5

<210> 103

<211> 9

<212> PRT

<213> HCV vaccines

<400> 103

Arg Leu Gly Val Arg Ala Thr Arg Lys  
1 5

<210> 104

<211> 10

<212> PRT

<213> HCV vaccines

<400> 104

Arg Leu Ile Val Phe Pro Asp Leu Gly Val  
1 5 10

<210> 105

<211> 9

<212> PRT

<213> HCV vaccines

<400> 105

Arg Leu Leu Ala Pro Ile Thr Ala Tyr  
1 5

<210> 106

<211> 10

<212> PRT

<213> HCV vaccines

<400> 106

Arg Met Tyr Val Gly Gly Val Glu His Arg  
1 5 10

<210> 107

<211> 11

<212> PRT

<213> HCV vaccines

<400> 107

Arg Met Tyr Val Gly Gly Val Glu His Arg Leu  
1 5 10

<210> 108

<211> 9

<212> PRT

<213> HCV vaccines

<400> 108

Arg Ser Glu Leu Ser Pro Leu Leu Leu  
1 5

<210> 109

<211> 10

<212> PRT

<213> HCV vaccines

<400> 109

Arg Thr Ala Leu Asn Cys Asn Asp Ser Leu  
1 5 10

<210> 110

<211> 9

<212> PRT

<213> HCV vaccines

<400> 110

Arg Val Cys Glu Lys Met Ala Leu Tyr  
1 5

<210> 111

<211> 10

<212> PRT

<213> HCV vaccines

<400> 111

Ser Met Ser Tyr Thr Trp Thr Gly Ala Leu  
1 5 10

<210> 112

<211> 13

<212> PRT

<213> HCV vaccines

<400> 112

Ser Met Ser Tyr Thr Trp Thr Gly Ala Leu Ile Thr Pro  
1 5 10

<210> 113

<211> 10

<212> PRT

<213> HCV vaccines

<400> 113

Ser Trp His Ile Asn Arg Thr Ala Leu Asn  
1 5 10

<210> 114

<211> 9

<212> PRT

<213> HCV vaccines

<400> 114

Ser Tyr Thr Trp Thr Gly Ala Leu Ile  
1 5

<210> 115

<211> 12

<212> PRT

<213> HCV vaccines

<400> 115

Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	Leu	Gly
1				5					10		

<210> 116

<211> 15

<212> PRT

<213> HCV vaccines

<400> 116

Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	Leu	Gly	Cys	Ile	Val
1				5					10					15

<210> 117

<211> 15

<212> PRT

<213> HCV vaccines

<400> 117

Thr	Ile	Phe	Lys	Ile	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg
1				5					10					15

<210> 118

<211> 15

<212> PRT

<213> HCV vaccines

<400> 118

Thr	Ile	Phe	Lys	Val	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg
1				5					10					15

<210> 119

<211> 9

<212> PRT

<213> HCV vaccines

<400> 119

Thr Ile Leu Gly Ile Gly Thr Val Leu  
1 5

<210> 120

<211> 8

<212> PRT

<213> HCV vaccines

<400> 120

Thr Ile Asn Tyr Thr Ile Phe Lys  
1 5

<210> 121

<211> 9

<212> PRT

<213> HCV vaccines

<400> 121

Thr Pro Ala Glu Thr Thr Val Arg Leu  
1 5

<210> 122

<211> 16

<212> PRT

<213> HCV vaccines

<400> 122

Thr Gln Ser Phe Leu Ala Thr Cys Ile Asn Gly Val Cys Trp Thr Val  
1 5 10 15

<210> 123

<211> 15

<212> PRT

<213> HCV vaccines

<400> 123

Thr Arg Val Pro Tyr Phe Val Arg Ala Gln Gly Leu Ile Arg Ala  
1 5 10 15

<210> 124

<211> 9

<212> PRT

<213> HCV vaccines

<400> 124

Thr Thr Ile Leu Gly Ile Gly Thr Val  
1 5

<210> 125

<211> 15

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Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu Thr  
1 5 10 15

<210> 126

<211> 15

<212> PRT

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Thr Thr Leu Leu Phe Asn Ile Leu Gly Gly Trp Val Ala Ala Gln  
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<210> 127

<211> 9

<212> PRT

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<400> 127

Thr Val Asn Phe Thr Ile Phe Lys Val  
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<211> 15

<212> PRT

<213> HCV vaccines

<400> 128

Thr	Val	Asn	Phe	Thr	Ile	Phe	Lys	Val	Arg	Met	Tyr	Val	Gly	Gly
1				5					10					15

<210> 129

<211> 9

<212> PRT

<213> HCV vaccines

<400> 129

Thr	Val	Asn	Tyr	Thr	Ile	Phe	Lys	Ile
1				5				

<210> 130

<211> 15

<212> PRT

<213> HCV vaccines

<400> 130

Thr	Val	Asn	Tyr	Thr	Ile	Phe	Lys	Ile	Arg	Met	Tyr	Val	Gly	Gly
1				5					10					15

<210> 131

<211> 9

<212> PRT

<213> HCV vaccines

<400> 131

Val	Ala	Gly	Ala	Leu	Val	Ala	Phe	Lys
1				5				

<210> 132

<211> 32

<212> PRT

<213> HCV vaccines



<400> 132

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Phe
1				5					10					15	

Thr	Ile	Phe	Lys	Val	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 133

<211> 32

<212> PRT

<213> HCV vaccines

<400> 133

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Phe
1				5					10					15	

Thr	Ile	Phe	Lys	Ile	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 134

<211> 32

<212> PRT

<213> HCV vaccines

<400> 134

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Tyr
1				5					10					15	

Thr	Ile	Phe	Lys	Val	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 135

<211> 32

<212> PRT

<213> HCV vaccines

<400> 135

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Tyr
1				5					10					15	

Thr	Ile	Phe	Lys	Ile	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 136

<211> 32

<212> PRT

<213> HCV vaccines

<400> 136

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Ile	Asn	Phe
1				5					10					15	

Thr	Ile	Phe	Lys	Val	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 137

<211> 32

<212> PRT

<213> HCV vaccines

<400> 137

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Ile	Asn	Phe
1				5					10					15	

Thr	Ile	Phe	Lys	Ile	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 138

<211> 32

<212> PRT

<213> HCV vaccines

<400> 138

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Ile	Asn	Tyr
1				5					10					15	

Thr	Ile	Phe	Lys	Val	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 139

<211> 32

<212> PRT

<213> HCV vaccines

<400> 139

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Ile	Asn	Tyr
1				5					10					15	

Thr	Ile	Phe	Lys	Ile	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25					30		

<210> 140

<211> 32

<212> PRT

<213> HCV vaccines

<400> 140

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Phe
1				5					10					15	

Thr	Ile	Phe	Lys	Val	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25						30	

<210> 141

<211> 32

<212> PRT

<213> HCV vaccines

<400> 141

Val	Asp	Tyr	Pro	Tyr	Arg	Leu	Trp	His	Tyr	Pro	Cys	Thr	Val	Asn	Tyr
1				5					10					15	

Thr	Ile	Phe	Lys	Ile	Arg	Met	Tyr	Val	Gly	Gly	Val	Glu	His	Arg	Leu
			20					25						30	

<210> 142

<211> 10

<212> PRT

<213> HCV vaccines

<400> 142

Val	Leu	Cys	Glu	Cys	Tyr	Asp	Ala	Gly	Ala
1				5					10

<210> 143

<211> 20

<212> PRT

<213> HCV vaccines

<400> 143

Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala	Thr	Cys	Ile	Asn	Gly	Val
1				5					10					15	

Cys Trp Thr Val

20

<210> 144

<211> 18

<212> PRT

<213> HCV vaccines

<400> 144

Val	Val	Cys	Cys	Ser	Met	Ser	Tyr	Thr	Trp	Thr	Gly	Ala	Leu	Ile	Thr
1				5					10					15	

Pro Cys

<210> 145

<211> 15

<212> PRT

<213> HCV vaccines

<400> 145

Val	Val	Leu	Cys	Glu	Cys	Tyr	Asp	Ala	Gly	Ala	Ala	Trp	Tyr	Glu
1				5					10					15

<210> 146

<211> 10

<212> PRT

<213> HCV vaccines

<400> 146

Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu
1				5					10

<210> 147

<211> 17

<212> PRT

<213> HCV vaccines

<400> 147

Tyr	Leu	Leu	Pro	Arg	Arg	Gly	Pro	Arg	Leu	Gly	Val	Arg	Ala	Thr	Arg
1				5					10					15	

Lys

<210> 148

<211> 9

<212> PRT

<213> HCV vaccines

<400> 148

Tyr Leu Val Ala Tyr Gln Ala Thr Val  
1 5

<210> 149

<211> 21

<212> PRT

<213> HCV vaccines

<400> 149

Tyr Leu Val Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro  
1 5 10 15

Pro Pro Ser Trp Asp  
20

<210> 150

<211> 9

<212> PRT

<213> HCV vaccines

<400> 150

Tyr Met Asp Gly Thr Met Ser Gln Val  
1 5

<210> 151

<211> 15

<212> PRT

<213> HCV vaccines

<400> 151

Tyr Pro Tyr Arg Leu Trp His Tyr Pro Cys Thr Val Asn Phe Thr  
1 5 10 15

<210> 152

<211> 9

<212> PRT

<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (1)..(9)  
<223> X = any positively charged amino acid

<400> 152  
Xaa Glx Xaa Glx Glx Glx Xaa Glx Xaa  
1 5

<210> 153  
<211> 10  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (1)..(10)  
<223> X = any positively charged amino acid

<400> 153  
Xaa Glx Xaa Glx Glx Glx Glx Xaa Glx Xaa  
1 5 10

<210> 154  
<211> 11  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<220>  
<221> MOD\_RES  
<222> (1)..(11)

<400> 154  
Xaa Glx Xaa Glx Glx Glx Glx Glx Xaa Glx Xaa  
1 5 10

<210> 155  
<211> 12  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic Peptide

<220>

<221> MOD\_RES  
<222> (1)..(12)  
<223> X = any positively charged amino acid

<400> 155  
Xaa Glx Xaa Glx Glx Glx Glx Glx Glx Xaa Glx Xaa  
1 5 10

<210> 156  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Synthetic  
Peptide

<220>  
<221> MOD\_RES  
<222> (1)..(13)  
<223> X = any positively charged amino acid

<400> 156  
Xaa Glx Xaa Glx Glx Glx Glx Glx Glx Xaa Glx Xaa  
1 5 10